

What is claimed is:

1. A circuit assembly for generating a phase-locked frequency-modulatable carrier frequency signal including a voltage-controlled oscillator generating the carrier frequency signal as a function of a control signal, and a phase detector which compares a reference frequency signal to a signal derived from the carrier frequency signal in phase therewith to thus produce the control signal so that the difference in phase between the signal derived from the carrier frequency signal and the reference frequency signal is zero, characterized in that a reference frequency generator (36) is provided whose output signal is applied as the reference frequency signal directly to said phase detector (44), that for generating the derived signal a mixer stage (30, 32, 38) is provided which mixes a signal output from a digital frequency generator (16) for modulating by digital signals in its frequency with a signal generated by frequency division from the carrier frequency signal output by said voltage-controlled oscillator (50) so that a signal materializes whose frequency equals the reference frequency.
2. The circuit assembly as set forth in claim 1, characterized in that said digital frequency generator (16) generates the signal modulatable in its frequency as a complex signal having two components 90° out of phase relative to each other, that these two components after being converted into analog signals are applied to said mixer stage (30, 32, 38) in which a mixer unit (30, 32) is provided for each component, that one component each of a complex signal generated by a polyphase network (54) from the signal obtained from the carrier frequency signal by frequency division is applied to said mixer units, and that the output signals of said mixer units (30, 32) are combined for sideband suppression and the combined signal applied to said phase detector (44).